

AMENDMENTS TO THE CLAIMS

The following listing of claims replaces all prior versions and listings of claims in the application.

LISTING OF CLAIMS

1. (Currently Amended) A semiconductor device comprising:

a base including a semiconductor material, the base having a source region, a drain region and a channel region disposed between the source region and the drain region;

a gate insulating material disposed ~~an insulating material provided~~ in contact with the channel region of the base; and

a gate ~~an electrode disposed~~ ~~provided~~ on the gate insulating material;

the gate insulating wherein the insulating material including ~~includes~~ silicon, oxygen, either hydrogen or deuterium, and at least one other element ~~other than silicon, oxygen and hydrogen,~~

the gate insulating material having a first region where B/A ~~is in a range of 1.6 to 10 or less, where~~ a concentration of the at least one other element in the first region ~~is being defined as A_1 and a concentration of~~ the hydrogen or deuterium in the first region ~~is being defined as B_1~~

the gate insulating material having a second region where D/C is 1.6 or more, a concentration of the at least one other element in the second region being defined as C , and a concentration of the hydrogen or deuterium in the second region being defined as D .

the second region is located at a portion of the gate insulating material at a distance in a thickness direction of Y/10 of the gate insulating material from an interface between the channel region of the gate insulating material and the base, Y being an average thickness of the gate insulating material.

2-3. (Cancelled)

4. (Currently Amended) The semiconductor device as claimed in claim 1, wherein the at least one other element ~~includes~~ is at least one of nitrogen, carbon, aluminum, hafnium, zirconium, and germanium.

5. (Currently Amended) The semiconductor device as claimed in claim 1, wherein the concentration of the hydrogen or deuterium and the concentration of the at least one other element are measured by Secondary Ion Mass Spectrometry.

6. (Cancelled)

7. (Currently Amended) The semiconductor device as claimed in ~~claim 1~~ claim 1, wherein the gate insulating material is formed into a gate insulating film and an the average thickness of the gate insulating film is 10 nm or less.

8 - 9. (Cancelled)

10. (Currently Amended) The semiconductor device as claimed in claim 1, wherein ~~a~~the maximum leakage current passing through the gate insulating film in ~~a~~the thickness direction thereof that is measured in a state that ~~a~~the gate voltage is applied to the electrode so that ~~an~~the electric field intensity in the gate insulating film is 3 MV/cm or less is 2×10^{-8} A/cm² or less.

11-12. (Cancelled)

13. (Original) An electronic device comprising the semiconductor device defined by claim 1.

14. (Original) An electronic apparatus comprising the electronic device defined by claim 13.

15. (Cancelled)